

(You must show your work and answers on a separate piece of paper!)

All questions are worth **2 marks each** unless otherwise stated

#1. Draw a factor tree for 250

#2. State the prime factorization of 250 using powers.

#3. Find the GCF of 20 and 45.

#4. Find the LCM of 16 and 20.

#5. Find $\sqrt{2025}$. (1 mark)

#6. Find $\sqrt[3]{2744}$. (1 mark)

#7. Expand (multiply) each of the following:

- a) $2(x + 4)$
- b) $3x(x - 4)$
- c) $-3(y + 2)$
- d) $(x + 5)(x + 3)$
- e) $(x - 2)(x - 5)$
- f) $(z + 5)(z - 3)$
- g) $(2x + 1)(x + 6)$
- h) $(3w - 2)(2w + 3)$
- i) $(3x + 2)(2x^2 + x + 5)$

#8. Factor (Hint: Always look for GCF first!!)

- a) $2x - 10$
- b) $x^2 + 3x$
- c) $10x^2 + 20xy + 30xy^2$
- d) $-3x - 15$
- e) $y^2 + 8y + 12$
- f) $x^2 - 2x - 24$
- g) $2x^2 + 11x + 5$
- h) $6x^2 + 7x - 3$
- i) $x^2 - 25$
- j) $4x^2 - 81$
- k) $2x^2 + 20x + 50$